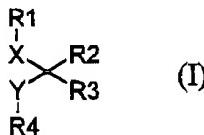


IN THE CLAIMS:

✓  
Replace claims 1-9 and 12-17 as originally filed with amended claims 1-9 and 12-17.

✓  
Cancel claims 10 and 11.

✓  
1. (Amended) A compound of general Formula I



or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt,  
wherein:

*Sub*  
*B<sup>13</sup>*  
R<sub>1</sub> is selected from the group consisting of:

C<sub>1</sub>-C<sub>6</sub> alkyl, substituted with one or more basic groups;  
cycloalkyl, substituted with one or more basic groups;  
heterocyclyl, comprising at least one nitrogen atom;  
heterocyclyl, comprising at least one hetero atom selected from S or O, and substituted  
with one or more basic groups; and  
aryl, substituted with one or more basic groups;

R<sub>2</sub> is selected from the group consisting of H, acyl, acylamino, alkyl, alkylcarbamoyl, alkylthio,  
alkoxy, aroyl, arylamino, aryloxy, arylthio, amidino, amino, aryl, carbamoyl, carboxy,  
cyano, cycloalkyl, formyl, guanidino, halogen, heterocyclyl, hydroxy, oxo, nitro, thiol, a  
Z<sub>2</sub>N-CO-O- group, a ZO-CO-NZ- group, and a Z<sub>2</sub>N-CO-NZ- group;

R<sub>3</sub> is selectected from the group consisting of COOR<sub>5</sub>, SO(OR<sub>5</sub>), SO<sub>3</sub>R<sub>5</sub>, P=O(OR<sub>5</sub>)<sub>2</sub>, B(OR<sub>5</sub>)<sub>2</sub>,  
P=OR<sub>5</sub>(OR<sub>5</sub>), tetrazole, and a carboxylic acid isostere;

R<sub>4</sub> is SH, S-CO-C<sub>1</sub>-C<sub>6</sub> alkyl, or S-CO-aryl;

R<sub>5</sub> is H, C<sub>1</sub>-C<sub>6</sub> alkyl, or aryl;

R<sub>6</sub> is H or C<sub>1</sub>-C<sub>6</sub> alkyl;

X is selected from the group consisting of O, S, SO, SO<sub>2</sub>, C(Z)<sub>2</sub>, N(Z), NR<sub>6</sub>SO<sub>2</sub>, SO<sub>2</sub>NR<sub>6</sub>,  
NR<sub>6</sub>CO, and CONR<sub>6</sub>;

Y is C(Z)<sub>2</sub>; and

*contd.*

*a*  
Z is independently selected from the group consisting of H, C<sub>1</sub>-C<sub>6</sub> alkyl, aryl, cycloalkyl, and heterocyclyl.

2. (Amended) The compound according to claim 1, or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt,

wherein:

R<sub>1</sub> is selected from the group consisting of:

*Sub B13*  
cycloalkyl, substituted with one or more basic groups;

heterocyclyl, comprising at least one nitrogen atom;

heterocyclyl, comprising at least one hetero atom selected from S or O, and substituted with one or more basic groups; and

aryl, substituted with one or more basic groups;

R<sub>2</sub> is selected from the group consisting of H, acyl, acylamino, alkyl, alkylcarbamoyl, alkylthio, alkoxy, aroyl, aroylamino, aryloxy, arylthio, amidino, amino, aryl, carbamoyl, carboxy, cyano, cycloalkyl, formyl, guanidino, halogen, heterocyclyl, hydroxy, oxo, nitro, thiol, Z<sub>2</sub>N-CO-O-, ZO-CO-NZ-, and Z<sub>2</sub>N-CO-NZ-;

R<sub>3</sub> is COOR<sub>5</sub>;

R<sub>4</sub> is SH, S-CO-C<sub>1</sub>-C<sub>6</sub> alkyl, or S-CO-aryl;

R<sub>5</sub> is H, C<sub>1</sub>-C<sub>6</sub> alkyl, or aryl;

R<sub>6</sub> is H or C<sub>1</sub>-C<sub>6</sub> alkyl;

X is selected from the group consisting of O, S, SO, SO<sub>2</sub>, C(Z)<sub>2</sub>, N(Z), NR<sub>6</sub>SO<sub>2</sub>, SO<sub>2</sub>NR<sub>6</sub>, and CONR<sub>6</sub>;

Y is C(Z)<sub>2</sub>; and

Z is independently selected from the group consisting of H, C<sub>1</sub>-C<sub>6</sub> alkyl, aryl, cycloalkyl and heterocyclyl.

3. (Amended) The compound according to claim 1, or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt,

wherein:

R<sub>1</sub> is selected from the group consisting of:

*contd.*

*Q1*

cycloalkyl, substituted with one or more basic groups;  
heterocyclyl, comprising at least one nitrogen atom; and  
heterocyclyl, comprising at least one hetero atom selected from S or O, and substituted  
with one or more basic groups;

R<sub>2</sub> is selected from the group consisting of H, C<sub>1</sub>-C<sub>3</sub> alkyl, amino, halogen, and hydroxy;

R<sub>3</sub> is COOR<sub>5</sub>;

R<sub>4</sub> is SH, S-CO-C<sub>1</sub>-C<sub>6</sub> alkyl, or S-CO-aryl;

*Sub*  
*B13*

R<sub>5</sub> is H, C<sub>1</sub>-C<sub>6</sub> alkyl, or aryl;

X is C(Z)<sub>2</sub>;

Y is C(Z)<sub>2</sub>; and

Z is independently H or C<sub>1</sub>-C<sub>6</sub> alkyl.

4. (Amended) The compound according to claim 1, or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt,  
wherein:

R<sub>1</sub> is selected from the group consisting of:

cycloalkyl, substituted with one or more basic groups; and  
heterocyclyl, comprising at least one nitrogen atom;

R<sub>2</sub> is H, F, or C<sub>1</sub> alkyl;

R<sub>3</sub> is COOR<sub>5</sub>;

R<sub>4</sub> is SH, S-CO-C<sub>1</sub>-C<sub>6</sub> alkyl, or S-CO-aryl;

R<sub>5</sub> is H, C<sub>1</sub>-C<sub>6</sub> alkyl, or aryl;

X is C(Z)<sub>2</sub>;

Y is C(Z)<sub>2</sub>; and

Z is independently H or C<sub>1</sub>-C<sub>6</sub> alkyl.

5. (Amended) The compound according to claim 1, or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt, wherein:

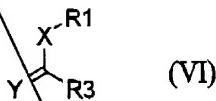
R<sub>1</sub> is selected from the group consisting of cyclopentyl, pyridyl, pyrimidinyl, piperidinyl, and thiazolyl;

*contd.*  
a 1 R<sub>2</sub> is H, F, or C<sub>1</sub> alkyl;  
R<sub>3</sub> is COOR<sub>5</sub>;  
R<sub>4</sub> is SH;  
R<sub>5</sub> is H;  
X is CHZ;  
Y is CHZ; and  
Z is independently H or C<sub>1</sub>-C<sub>6</sub> alkyl.

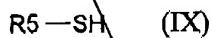
*Sub  
B13*

6. (Amended) A process for the preparation of a compound according to any one of claims 1-5, wherein R<sub>1</sub>, R<sub>3</sub>, R<sub>4</sub>, and Y are as defined in claim 1, X is C(Z)<sub>2</sub>, and R<sub>2</sub> is H, comprising the step of:

reacting a compound of Formula VI,



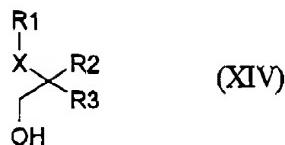
wherein R<sub>1</sub>, R<sub>3</sub> and Y are as defined in claim 1 and X is C(Z)<sub>2</sub>, with a compound of Formula IX,



wherein R<sub>5</sub> is a protecting group, optionally in the presence of a base or a free-radical initiator.

7. (Amended) A process for the preparation of a compound according to any one of claims 1-5, wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> are as defined in claim 1, Y is CH<sub>2</sub>, and X is O, S, C(Z)<sub>2</sub>, or N(Z), comprising the step of:  
reacting a compound of Formula XIV,

contd.  
a/1



*Sub*  
*B13*  
wherein  $\text{R}_1$ ,  $\text{R}_2$ , and  $\text{R}_3$  are as defined in claim 1, and  $\text{X}$  is  $\text{O}$ ,  $\text{S}$ ,  $\text{C}(\text{Z})_2$ , or  $\text{N}(\text{Z})$ , with a compound of general Formula IX,



wherein  $\text{R}_5$  is a protecting group, in the presence of a reagent, under standard conditions.

8. (Amended) A process for the preparation of a compound according to any one of claims 1-5, wherein  $\text{R}_1$ ,  $\text{R}_2$ ,  $\text{R}_3$ ,  $\text{R}_4$ , and  $\text{Y}$  are as defined in claim 1, and  $\text{X}$  is  $\text{NR}_6\text{CO}$  or  $\text{NR}_6\text{SO}_2$ , comprising the step of:

reacting a compound of general Formula XV,



wherein  $\text{R}_2$ ,  $\text{R}_3$ ,  $\text{R}_6$  and  $\text{Y}$  are as defined in claim 1 and  $\text{R}_5$  is a protecting group, with a compound of general Formula XVI,



wherein  $\text{R}_1$  is as defined in claim 1 and  $\text{X}$  is  $\text{COOH}$  or  $\text{SO}_2\text{Cl}$ , in the presence of a coupling reagent, under standard conditions.

9. (Amended) A pharmaceutical formulation comprising a compound according to any one of claims 1 to 5 as active ingredient in combination with a pharmaceutically acceptable adjuvant, diluent or carrier.

*A/*

12. (Amended) A method for treatment or prophylaxis of conditions associated with inhibition of carboxypeptidase U, comprising administering to a patient in need of such treatment an effective amount of a compound according to any one of claims 1-5.

*Sub*  
*B13*

13. (Amended) A pharmaceutical formulation for the treatment or prophylaxis of conditions associated with inhibition of carboxypeptidase U, comprising a compound according to any one of claims 1-5 in combination with a pharmaceutically acceptable adjuvant, diluent, or carrier.

14. (Amended) A pharmaceutical formulation, comprising:

- (i) a compound of Formula I, or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt; and
- (ii) one or more antithrombotic agents with a different mechanism of action from that of component (i),  
in admixture with a pharmaceutically acceptable adjuvant, diluent, or carrier.

15. (Amended) A kit of parts comprising:

- (i) a pharmaceutical formulation comprising a compound of Formula I, or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt, in admixture with a pharmaceutically acceptable adjuvant, diluent, or carrier; and
- (ii) a pharmaceutical formulation comprising one or more antithrombotic agents with a different mechanism of action from that of component (i),  
in admixture with a pharmaceutically acceptable adjuvant, diluent, or carrier,  
wherein compound (i) and agent (ii) are each formulated for administration in conjunction with the other.

16. (Amended) A method for treatment of a patient suffering from, or susceptible to, a condition in which inhibition of carboxypeptidase U and a different antithrombotic mechanism are required or desired, which method comprises administering to the patient a therapeutically effective total amount of:

*contd.*  
*a2*

(i) a compound of Formula I, or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt, in admixture with a pharmaceutically acceptable adjuvant, diluent, or carrier; and  
(ii) one or more antithrombotic agents with a different mechanism of action from that of component (i),  
in admixture with a pharmaceutically acceptable adjuvant, diluent, or carrier.

*Sub  
B13*

17. (Amended) A method for the treatment of a patient suffering from, or susceptible to, a condition in which inhibition of carboxypeptidase U and a different antithrombotic mechanism are required or desired, which method comprises administering to the patient the formulation according to claim 14.

Add new claims 18-28.

*a3*

18. (New) The compound according to any one of claims 1-4, wherein the basic group is selected from the group consisting of amino, amidino, and guanidino.

*Sub  
B13*

19. (New) The process according to claim 6, wherein the protecting group is selected from the group consisting of acetate (Ac), benzoyl (Bz), benzyl (Bn), and 4-methoxybenzyl (PMB).

20. (New) The process according to claim 6, wherein the base is selected from the group consisting of NaQMe, NaH, and triethylamine.

21. (New) The process according to claim 6, wherein the free-radical initiator is  $\alpha,\alpha'$ -azobisisbutyronitrile (AIBN).

22. (New) The process according to claim 7, wherein the protecting group is acetate (Ac) or benzoyl (Bz).

23. (New) The process according to claim 7, wherein the reagent is  $\text{PPh}_3/\text{diisopropyl azodicarboxylate}$  (DIAD).

24. (New) The process according to claim 8, wherein the protecting group is selected from the group consisting of acetate (Ac), benzoyl (Bz), benzyl (Bn), and 4-methoxybenzyl (PMB).

*cont'd.*

*a3*  
25. (New) The process according to claim 8, wherein the coupling reagent is selected from the group consisting of:

- (i) (benzotriazol-1-yloxy)trityrrolidinophosphonium hexafluorophosphate (PyBOP)/diisopropylethylamine (DIPEA);  
(ii) dicyclohexylcarbodiimide (DCC)/1-hydroxybenzotriazol (HOBr);  
(iii) 1-(3-dimethylaminopropyl)-3-ethylcarbodiimide (EDC)/triethylamine (TEA)/N,N-dimethyl amino pyridine (DMAP); and  
(iv) pyridine.

*Sub  
β13*

26. (New) The formulation according to claim 14, wherein the antithrombotic agent with a different mechanism of action is selected from the group consisting of an antiplatelet agent, thromboxane receptor inhibitor, synthetase inhibitor, fibrinogen receptor antagonist, prostacyclin mimetic, phosphodiesterase inhibitor, and an ADP-receptor (P<sub>2</sub>T) antagonist.

27. (New) The kit according to claim 15, wherein the antithrombotic agent with a different mechanism of action is selected from the group consisting of an antiplatelet agent, thromboxane receptor inhibitor, synthetase inhibitor, fibrinogen receptor antagonist, prostacyclin mimetic, phosphodiesterase inhibitor, and an ADP-receptor (P<sub>2</sub>T) antagonist.

28. (New) The method according to claim 16, wherein the antithrombotic agent with a different mechanism of action is selected from the group consisting of an antiplatelet agent, thromboxane receptor inhibitor, synthetase inhibitor, fibrinogen receptor antagonist, prostacyclin mimetic, phosphodiesterase inhibitor, and an ADP-receptor (P<sub>2</sub>T) antagonist.